

IN THE CLAIMS:

1. (Currently Amended) A method for positioning ~~components~~ automotive body parts to be joined together, the method comprising:

positioning a multiaxially movable central module, said central module having at least three ~~plurality of~~ multiaxially movable articulated arms within an inner space defined by an [[the]] automotive body part ~~component~~, said ~~plurality of~~ articulated arms being movable independent of the movement of said movable central module, each articulated arm being independently movable and having a holding means located at an end thereof;

extending said articulated arms, in a position within said inner space, from a folded position to a clamping position, said holding means clamping said ~~component~~ automotive body part in said clamping position such that said articulated arms support said automotive body part when another automotive body part is connected to said automotive body part to form an assembled automotive body part;

folding said articulated arms into said folded position after said automotive body part is connected to said another automotive body part, one articulated arm being adjacent another articulated arm in said folded position, said articulated arms being in contact with said central module in said folded position;

moving said central module with said articulated arms in said folded position to a location outside said assembled automotive body part after assembly of said automotive body parts.

2. (Previously Presented) The method according to claim 1, wherein the components to be joined are at least roughly assembled by further suitable handling devices.

3. (Previously Presented) The method according to claim 1, wherein prior to a tacking together of the components, position measurements are performed on the components to be joined and if position deviations are established active position corrections are brought about by the plurality of articulated arms.

4. (Previously Presented) The method according to claim 3, wherein measured position values are buffer stored and after the detection of a deviation trends are used for the correction of a control program for the clamping device and/or for messages to a quality assurance unit.

5. (Previously Presented) The method according to claim 1, wherein following a subsequent tacking together of the components or further downstream production processes, the plurality of articulated arms independently again move out of the space within the components.

6. (Previously Presented) The method according to claim 1, wherein, following a subsequent tacking together of the components or further downstream production processes, the plurality of articulated arms are moved again out of the space within the components by a further handling device.

7. (Previously Presented) The method according to claim 3, wherein tacking together is carried out by the actual plurality of articulated arms using suitable tools.

8. (Original) The method according to claim 1, wherein the arms are positioned synchronously in space in accordance with a control unit.

9. (Original) The method according to claim 1, wherein the arms are positioned asynchronously in space in accordance with a control unit.

10. (Previously Presented) The method according to claim 1, wherein movements of the arms take place in at least three degrees of freedom in each case.

11. (Previously Presented) The method according to claim 1, wherein at least one articulated arm is directly supported on a base part of the component.

12. (Previously Presented) The method according to claim 1, wherein the plurality of articulated arms are supported on a conveyor element carrying the components.

13. (Currently Amended) A device for positioning components automobile body parts to be joined together, the device comprising:

a freely multiaxially movable central module; and

three a plurality of independently multiaxially movable articulated arms, said articulated
5 arms being connected to said movable central module, said movable central module being
movable from a location outside of an automobile body part to a position within an inner space
of the component said automobile body part, at least one articulated arm having a holding
element for holding the component automobile body part, said articulated arms extending from
a folded position to an extended position when said central module with said articulated arms
10 is located within said inner space of said automobile body part, said articulated arms being
adjacent to said movable central module in said folded position to form a compact positioning
device, said articulated arms being extended in said extended position such that said holding
element grips the component automobile body part, whereby another automobile body part is
connected to said automobile body part to form an assembled automobile body part, said
15 articulated arms being folded into said folded position after said another automobile body part
is connected to said automobile body part, whereby said central module with said articulated
arms in said folded position moves to a location outside said assembled automobile body part
after said another automobile body part is connected to said automobile body part.

14. (Original) The device according to claim 13, wherein the arms are constructed for
movements with in each case at least three degrees of freedom.

15. (Original) The device according to claim 13, wherein a plurality of arms in each
case has at least one tool for the connection of the assembled components.

16. (Original) The device according to claim 13, wherein it can be brought into a space within a desired arrangement of the components to be joined and following a subsequent tacking together of the components or further downstream production processes can be removed again therefrom.

17. (Original) The device according to claim 13, wherein there is a computer-based control unit.

18. (Original) The device according to claim 13, wherein the arms have means for media supply to the holding elements and/or tools.

19. (Original) The device according to claim 13, wherein the central module has means for media supply to the arms.

20. (Original) The device according to claim 13, wherein the central module has a power supply unit.

21. (Original) The device according to claim 13, wherein the arms are constructed for the provision of high static holding forces up to 3000 N.

22. (Previously Presented) The device according to claim 13, wherein each arm has

its own control-relevant point or terminal control position (TCP).

23. (Previously Presented) The device according to claim 13, wherein the movable central module and plurality of articulated arms connected to said movable central module are constructed for automatically moving into a space within the components to be joined.

24. (Previously Presented) The device according to claim 13, wherein the movable central module and plurality of articulated arms connected to said movable central module are constructed for automatically moving out of the space within the components to be joined.

25. (Original) The device according to claim 13, wherein the arms can be folded in and/or applied to the central module.

26. (Previously Presented) The device according to claim 13, wherein there is at least one support mechanism for supporting the plurality of articulated arms on a component of the component structure and/or a component-carrying conveyor element.

27. (Original) The device according to claim 13, wherein on the arms and/or central module are provided sensors for recording measured position values for the components and/or further measured values relevant with respect to a quality assurance for the downstream production processes.

28. (Previously Presented) The device according to claim 26, wherein there is a storage unit for the buffer storage of measured values.

29. (Currently Amended) A method for positioning a component within an inner space for joining to one or more additional components, the method comprising:

providing a central module for multiaxial movement;

providing a ~~plurality of~~ at least three articulated arms attached to said central module
5 for movement therewith and for movement independently of movement of said central module,
at least one of said articulated arms having a holding means located at an end thereof;

moving said central module by multiaxial movement, with said articulated arms in a folded position, from a starting location outside of the inner space of the component to a work position within the inner space of the component, said articulated arms being adjacent to said
10 movable central module in said folded position to form a compact positioning device;

extending one or more of said articulated arms within said inner space the component
from the folded position to a clamping position;

clamping the component with said holding means in said clamping position such that
said articulated arms support the component when the component is connected to another
15 component;

folding said articulated arms into said folded position after the component is connected
to the other automobile body component to form an automobile body assembly;

moving said central module with said articulated arms in said folded position to a

location outside said automobile body assembly after the component is connected to the other

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component.